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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/669,852	09/27/2000	John J Horton	BS00-150	6537

28970 7590 12/28/2004

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EXAMINER

STRANGE, AARON N

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/669,852

Applicant(s)

HORTON, JOHN J

Examiner

Aaron Strange

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 26-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/12/2004 have been fully considered but they are not persuasive.
2. Applicant's arguments with respect to claims 1-14,15-23,and 33-45 have been considered but are moot in view of the new ground(s) of rejection.
3. With regard to claims 1-14,15-23, and 33-45, and Applicant's assertion that the combination of Branson, Hibbard, and Tsoft fails to disclose displaying a message prompting the user to select whether to connect to the network via a dial-up modem, the Examiner agrees. However, these claims have been rejected with new grounds of rejection, as discussed below.
4. Applicant's arguments with respect to claims 24, and 26-32 have been considered, but are not persuasive.
5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the service provider is aware of the xDSL failure without the end user making contact with the service provider (Remarks, Page 11)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

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the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. With regard to claims 24 and 26-32, and Applicant's assertion that Hibbard "does not disclose that the service provider is monitoring the dial up connection in order to conclude that xDSL has failed" (Remarks, Page 12), it is noted that this limitation does not appear in the claim. Claim 24 merely states that the dial-up connection is monitored by the service provider, and does not limit how the service provider concludes that xDSL service has failed. Therefore, receiving a notification of failure from the end user or a network administrator meets the claim limitations.

7. In view of Applicant's remarks and the prior telephone interview, the Examiner recommends that claim 24 be amended to explicitly specify that the service provider concludes that xDSL service has failed by monitoring when a user who is an xDSL subscriber or customer logs in via dial-up modem and without receiving any communication from the user other than the information required to log in to the dial-up service.

8. With regard to Applicant's assertion that Tsoft discloses that the dial-up is used in instances other than when xDSL service has failed, the Examiner agrees. However, Hibbard was used to teach the process of determining the failure of the primary connection and failover to the backup dial-up connection. Hibbard discloses that the

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backup connection is used only when the primary connection has failed (Hibbard, Par 10).

Claim Objections

9. There appears to be a typographical error in some of the claims. For example, line 14 of claim 33 appears to read "dial-up modern" rather than "dial-up modem". This also appears in claim 39, lines 3 and 4. Applicant's assistance is requested in identifying any other locations containing this error.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-6,8-11,13-23,33-36,and 38-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Branson et al. (US 6,314,512) in view of Hibbard (US 2001/0056503) in further view of Tsoft in further view of Thurlow et al. (US 6,457,879).

12. With regard to claim 1, Branson discloses a method of monitoring the availability of Internet access, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting

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the connection failure, that the user computer is connected via xDSL service to the network to which the request is sent, or displaying a message prompting the user to select whether to connect to the network via dial-up modem.

Hibbard teaches a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses sending a request (ping) from a computer via a primary interface to which a response is expected and determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21).

Tsoft discloses using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action, such as connecting via a dial-up connection.

Thurlow teaches displaying a message asking a user for permission before switching between Internet connections (Thurlow, Col 13, Lines 19-36). This would have been an advantageous addition the system since it would have given the opportunity to stop the backup connection from being initiated automatically. This would have been particularly advantageous if the user had to pay to use the backup dial-up connection.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft and prompting the user to select whether to initiate the dial-up connection to obtain the invention as specified in claim 1. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to initiate a backup dial-up connection.

13. With regard to claim 2, Hibbard further discloses changing the default modem setting from an xDSL modem to a dial-up modem (Page 2, Paragraph 19).

14. With regard to claim 3, Hibbard further discloses connecting to the Internet via the dial-up modem (Page 3, Paragraph 27).

15. With regard to claim 4, Hibbard further discloses repeatedly sending the request (Page 2, Paragraph 21).

16. With regard to claim 5, Hibbard further discloses that a successive request is sent after a delay of a predetermined amount of time (Page 2, Paragraph 23).

17. With regard to claim 6, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the predetermined amount of time is in the range of 1 to 10 minutes.

While the reference remains silent on the specific interval between pings, it is clear that the interval is variable to allow the user to control the frequency of the connection testing. A smaller delay allows any failures to be detected sooner, but creates more traffic on the network, increasing congestion. Setting the delay between 1 and 10 minutes would allow the user to be notified of a failed connection no longer than 10 minutes after the failure occurs, without generating a significant amount of traffic on the network.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use a delay between 1 and 10 minutes in order to minimize the amount of network traffic caused by the connection failure detection, while still notifying the user of a failed connection in a reasonable amount of time.

18. With regard to claim 8, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

19. With regard to claim 9, Hibbard further discloses that the request is directed to a server operated by an xDSL service provider, the server being connected to the network (gateway at ISP) (Page 2, Paragraph 22).

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20. With regard to claim 10, Branson further discloses that the steps are carried out by an applet running on the user computer (Connection manager notifies GUI when failure occurs) (Col 4, Lines 19-23 and Col 5, Lines 52-65).

21. With regard to claim 11, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the applet is at least one of saved in firmware and saved on the hard drive of the user computer.

The Examiner takes Official Notice that saving an applet in firmware and/or the hard drive of the user computer is old and well known in the art. By storing the applet in firmware or on the hard drive of the user computer, the applet would not be lost every time the computer reboots. Having to reinstall the applet every time the computer is rebooted would be very inconvenient for the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the applet in firmware or the hard drive of the user computer so that the program would not need to be reinstalled every time the computer is rebooted. This would be very inconvenient and would not ensure that backup connectivity is always available.

22. With regard to claim 13, while Branson fails to specifically disclose that the applet is operative as an active program in a multi tasking operating system, this limitation is

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inherent. Since the applet is running on a personal computer (Col 3, Lines 49-52) which supports threading (Col 4, Lines 43-45), it is running in a multi tasking operating system.

23. With regard to claim 14, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to specifically disclose the monitoring dial-up modem connectivity to the Internet and determining therefrom whether xDSL service has failed.

However, Hibbard discloses that the backup connection is only utilized when the primary connection has failed (Hibbard, Par 10). Therefore, xDSL service has failed for all users utilizing the backup connection.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to monitor the dial-up modem connectivity and determine whether xDSL service has failed. Since the system only uses the backup connection (dial-up) when the primary connection (xDSL) has failed, the failure of xDSL can be concluded based on the use of the backup dial-up connection.

24. With regard to claim 15, Branson discloses a method of notifying an end user that the user's network connection has failed, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting the connection failure, that the user request is send via xDSL,

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or displaying a message prompting the user to select whether to connect via a dial-up connection.

Hibbard teaches a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses periodically sending a request (ping) from a computer via a primary interface to which a response is expected and determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21).

Tsoft discloses using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action, such as connecting via a dial-up connection.

Thurlow teaches displaying a message asking a user for permission before switching between Internet connections (Thurlow, Col 13, Lines 19-36). This would have been an advantageous addition the system since it would have given the opportunity to stop the backup connection from being initiated automatically. This would have been particularly advantageous if the user had to pay to use the backup dial-up connection.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a

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connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft and prompting the user to select whether to initiate the dial-up connection to obtain the invention as specified in claim 15. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to initiate a backup dial-up connection.

25. With regard to claim 16, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

26. With regard to claim 17, Hibbard further discloses that the ping command is directed to a server belonging to the xDSL provider (Page 2, Paragraph 22).

27. With regard to claim 18, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the predetermined amount of time is in the range of 1 to 10 minutes.

While the reference remains silent on the specific interval between pings, it is clear that the interval is variable to allow the user to control the frequency of the connection testing. A smaller delay allows any failures to be detected sooner, but creates more traffic on the network, increasing congestion. Setting the delay between 1 and 10 minutes would allow the user to be notified of a failed connection no longer than 10 minutes after the failure occurs, without generating a significant amount of traffic on the network.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use a delay between 1 and 10 minutes in order to minimize the amount of network traffic caused by the connection failure detection, while still notifying the user of a failed connection in a reasonable amount of time.

28. With regard to claim 19, Branson further discloses displaying a dialogue box on the end user's computer (GUI Window) (Branson et al. Col 5, Lines 52-65).

29. With regard to claim 20, Branson fails to disclose that the dialog box includes buttons that the end user clicks to select whether to use the dial-up modem connection.

The Examiner takes Official Notice that including buttons in a dialog box is old and well known in the art as a common method of soliciting user input. Giving the user the option of connecting via a backup connection requires a method of allowing the user to choose which option is desired. Buttons are often used to display choices in dialog boxes and the action to take is determined based upon which button is clicked.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use buttons in the dialog box as a means for determining whether the user wishes to connect via the backup connection in the event of a failure of the primary connection.

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30. With regard to claim 22, Branson further discloses that steps (a)-(d) of claim 15 are implemented in software that is operable on the end user's computer (Tier 1, including connection manager, is located at user PC) (Col 3, Lines 49-52 and Fig 1).

31. With regard to claim 23, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to disclose detecting if the end user uses dial-up service and associating such an event with a failure of xDSL service.

However, Hibbard discloses that the backup connection is only utilized when the primary connection has failed (Hibbard, Par 10). Therefore, xDSL service has failed for all users utilizing the backup connection.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to monitor the dial-up modem connectivity and determine whether xDSL service has failed. Since the system only uses the backup connection (dial-up) when the primary connection (xDSL) has failed, the failure of xDSL can be concluded based on the use of the backup dial-up connection.

32. With regard to claim 33, Branson discloses a method of detecting a network connection failure, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting

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the connection failure, that the user request is send via xDSL, or displaying a message prompting the user to select whether to connect via a dial-up connection.

Hibbard teaches a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses periodically sending a request (ping) from a computer via a primary interface to which a response is expected and determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21).

Tsoft discloses using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action, such as connecting via a dial-up connection.

Thurlow teaches displaying a message asking a user for permission before switching between Internet connections (Thurlow, Col 13, Lines 19-36). This would have been an advantageous addition the system since it would have given the opportunity to stop the backup connection from being initiated automatically. This would have been particularly advantageous if the user had to pay to use the backup dial-up connection.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a

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connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft and prompting the user to select whether to initiate the dial-up connection to obtain the invention as specified in claim 33. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to initiate a backup dial-up connection.

33. With regard to claim 34, Hibbard further discloses automatically establishing communication via dial-up modem (Page 1, Paragraph 9).

34. With regard to claim 35, Hibbard further discloses changing the default mode of communication back to xDSL service after a dial-up session is complete (primary connection is restored) (Page 2, Paragraph 19).

35. With regard to claim 36, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

36. With regard to claim 38, Hibbard further discloses that a plurality of requests are sent, each request being sent after a predetermined delay (Page 2, Paragraph 23).

37. With regard to claim 39, Branson discloses a system for monitoring a network connection, comprising: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2,

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Lines 49-64). Branson fails to disclose the method for detecting the connection failure, that the user request is send via xDSL, or displaying a message prompting the user to select whether to connect via a dial-up connection.

Hibbard teaches a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses periodically sending a request (ping) from a computer via a primary interface to which a response is expected and determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21).

Tsoft discloses using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action, such as connecting via a dial-up connection.

Thurlow teaches displaying a message asking a user for permission before switching between Internet connections (Thurlow, Col 13, Lines 19-36). This would have been an advantageous addition the system since it would have given the opportunity to stop the backup connection from being initiated automatically. This would have been particularly advantageous if the user had to pay to use the backup dial-up connection.

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Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft and prompting the user to select whether to initiate the dial-up connection to obtain the invention as specified in claim 33. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to initiate a backup dial-up connection.

38. With regard to claim 40, Hibbard further discloses that a default configuration of the user computer is to employ the xDSL modem (primary connection) (Page 2, Paragraph 19).

39. With regard to claim 41, Hibbard further discloses that the default configuration of the user computer is changed to employ the dial-up modem (backup connection) (Page 2, Paragraph 19).

40. With regard to claim 42, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

41. With regard to claim 43, Hibbard further discloses that the ping command is directed to a server belonging to an xDSL service provider (Page 2, Paragraph 22).

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42. With regard to claim 44, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the applet is at least one of saved in firmware and saved on the hard drive of the user computer.

The Examiner takes Official Notice that saving an applet in firmware and/or the hard drive of the user computer is old and well known in the art. By storing the applet in firmware or on the hard drive of the user computer, the applet would not be lost every time the computer reboots. Having to reinstall the applet every time the computer is rebooted would be very inconvenient for the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the applet in firmware or the hard drive of the user computer so that the program would not need to be reinstalled every time the computer is rebooted. This would be very inconvenient and would not ensure that backup connectivity is always available.

43. Claims 7,21,37, and 45 rejected under 35 U.S.C. 103(a) as being unpatentable over Branson et al. (US 6,314,512) in view of Hibbard (US 2001/0056503) in further view of Tsoft in further view of Thurlow et al. (US 6,457,879). in further view of Donahue et al. (US 5,835,721).

44. With regard to claims 7,21,37, and 45, while the system disclosed above shows substantial features of the claimed invention (discussed above), including that the

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primary connection is determined to be restored when a response is received to the request after a response to a previous request was not received (Hibbard, Page 3, Par 31). However, it fails to disclose displaying a message on the user computer indicating that xDSL service has been restored when a response to the request is received after a response to a previous request was not received.

Donahue teaches displaying a message on a user computer indicating that a failed connection has been restored (Donahue, Col 9, Lines 25-55 and Fig 13B). Since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to display a message indicating that xDSL service has been restored when a response to the request is received after a response to a previous request was not received. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

45. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Branson et al. (US 6,314,512) in view of Hibbard (US 2001/0056503) in further view of Tsoft in further view of Thurlow et al. (US 6,457,879). in further view of Engel.

46. While the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to disclose that the applet is automatically launched when the user computer is booted.

Engel teaches that having an application start automatically guarantees that it will be available as long as the system is running. This would be particularly useful in this case since the connection monitoring applet can be started automatically, guaranteeing that the backup connection will be available in the event of a connection failure.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to start the applet automatically when the user computer is booted since this would guarantee the availability of the backup connection in the event of a connection failure.

47. Claims 24 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hibbard (US 2001/0056503) in view of Tsoft.

48. With regard to claim 24, Hibbard discloses a method for monitoring the status of an Internet connection by a service provider, comprising the steps of: sending from a computer a request (ping) to which a response is expected; determining if a response (acknowledgement) has been received (Hibbard, Par 21); if a response has not been received, establishing a connection from the computer to a server of the service

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provider via dial up modem (Hibbard, Par 23); monitoring by the service provider the connection via dial-up modem (user logs into ISP) (Hibbard, Par 27) and determining the user's account information (Hibbard, Par 108-111); Hibbard fails to disclose that the service is xDSL, and concluding by the service provider that xDSL service has failed if the user is an xDSL service subscriber or customer and issuing by the service provider a trouble ticket requesting repair of the xDSL service.

However, Hibbard discloses that the backup connection is only utilized when the primary connection has failed (Hibbard, Par 10). Therefore, xDSL service has failed for all users utilizing the backup connection. Hibbard further discloses that the system administrator is notified whenever the backup connection is initiated (Hibbard, Par 27).

The Examiner takes Official Notice that the use of trouble tickets is old and well known in the art as a means for technical support personnel to track the status of a reported network problem. Therefore, upon notification of a failure, it would have been advantageous for the service provider to issue a trouble ticket requesting repair of the service. This would have allowed the repair status to be tracked by technical support personnel.

Tsoft discloses using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action, such as connecting via a dial-up connection.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use xDSL as the primary connection disclosed by Hibbard, concluding that xDSL has failed for if a user is using the dial-up connection, and issuing by the service provider a trouble ticket to request repair of the xDSL service when notified of a failure.

49. With regard to claim 26, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to disclose generating and sending an email to the user informing the user that an xDSL service failure has been detected and is being corrected.

However, when a service failure occurs, the user will typically telephone the ISP to notify them of the problem, and they will be told that the problem has been recognized and is being fixed. This time spent on the phone wastes the time of both the ISP and the user. Since the ISP already knows that service has failed when a backup connection has been initiated, it would be advantageous to contact the user via email to inform them that the problem is being corrected. This would notify the user and eliminate the need for a time-consuming telephone call in most cases.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to notify the user via email when a xDSL service failure is detected and inform them that a correcting is underway. This will save time for the ISP and the end user by preventing a large percentage of phone calls inquiring about failed service and could easily be automated as part of the failure detection system.

50. With regard to claims 27 and 28, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to disclose storing a plurality of trouble tickets or subjecting the trouble tickets to a data mining process.

Storage of trouble tickets and subjecting the tickets to data mining allows the system administrator to monitor the connections of several different users as well as create a log of all connection failures. Data mining the tickets can provide statistics regarding to the reliability of individual connections and the network as a whole. This information is valuable to administrators since it can help identify links that fail frequently and help locate faulty network devices. This information can be used to improve the overall reliability of the network and reduce the amount of time that the backup connection is utilized.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to store trouble tickets from a plurality of users and subject them to data mining in order to generate statistics about the reliability of the network and help the system administrator identify problem areas of the network.

51. With regard to claim 29, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

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52. With regard to claim 30, Hibbard further discloses that software running on the user computer executes at least steps (a)-(c) (Page 1, Par 9).

53. With regard to claim 31, Hibbard further discloses that a plurality of requests are sent, each being sent after a predetermined delay (Page 2, Paragraph 23).

54. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hibbard (US 2001/0056503) in view of Tsoft in further view of Donahue et al (US 5,835,721).

55. With regard to claim 32, while the system disclosed above shows substantial features of the claimed invention (discussed above), it fails to disclose notifying the user when xDSL serviced has been restored.

Donahue teaches displaying a message on a user computer indicating that a failed connection has been restored (Donahue, Col 9, Lines 25-55 and Fig 13B). Since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to display a message indicating that xDSL service has been restored when a response to the request is received after a response to a

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previous request was not received. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

Conclusion


56. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

57. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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ANS 12/17/2004


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